DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES Office of Structural Materials Quality Assurance and Source Inspection

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Contract #: 04-0120F4

Cty: SF/ALA Rte: 80 PM: 13.2/13.9

File #: 69.28

WELDING INSPECTION REPORT

Resident Engineer: Pursell, Gary **Report No:** WIR-011359 Address: 333 Burma Road **Date Inspected:** 08-Jan-2010

City: Oakland, CA 94607

OSM Arrival Time: 1900 **Project Name:** SAS Superstructure **OSM Departure Time:** 700 **Prime Contractor:** American Bridge/Fluor Enterprises, a JV

Contractor: Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China

CWI Name: See Below **CWI Present:** Yes No **Inspected CWI report:** Yes N/A **Rod Oven in Use:** Yes No No N/A N/A **Electrode to specification:** Yes No Weld Procedures Followed: Yes No N/A N/A **Qualified Welders:** Yes No **Verified Joint Fit-up:** Yes No N/A N/A Yes N/A **Approved Drawings:** Yes No **Approved WPS:** No Yes No N/A **Delayed / Cancelled:**

34-0006 **Bridge No: Component: OBG** and Tower

Summary of Items Observed:

CWI Inspectors: Mr. Du Zhi Qun, Mr. Li Yang

On this date CALTRANS OSM Quality Assurance (QA) Inspector, Mr. Paul Dawson, arrived on site at the Zhenhua Port Machinery Company (ZPMC) facility at Changxing Island, in Shanghai, China, for the purpose of monitoring welding and fabrication of the San Francisco / Oakland Bay Bridge (SFOBB) components. This QA Inspector observed the following:

Blast Shop #1

This QA Inspector along with Caltrans QA Inspectors Mr. George Goulet and Mr. Mike Hasler performed random visual inspections of the upper internal surfaces on OBG Segment 7CW between the 7BE weld seam and panel point (PP)53 as per ZPMC Notice of Inspection request number 2472. ZPMC had recently completed grit blasting, prior to application of paint, and the steel surfaces that were inspected were mostly free of rust oxide and other contaminants that had previously obscured portions of the plates and weld surfaces. This QA Inspector visually observed approximately 40 locations that required grinding to resolve visual weld spatter, arc strikes, shallow nicks, scrapes, and other minor surface rejections. The areas were marked with colored chalk and ZPMC workers were using electric grinders to remove the visually unacceptable areas and ZPMC performed magnetic particle inspections of the arc strike removal areas after they were removed.

Heavy Dock

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This QA Inspector observed ZPMC welder Mr. Yin Guoqiang, stencil 058792 is using flux cored welding procedure WPS-B-T-2333-TC-P4-F to make West tower lift 1 weld WSD1-SA653-D/F-2. This weld is located inside the base of West tower on the Heavy Dock. This QA Inspector observed ZPMC CWI Mr. You Qi Guo is monitoring this welding and this QA Inspector measured a welding current of approximately 245 amps and 27.0 volts. Mr. You Qi Guo observed these welding parameters and after he confirmed the welding parameters with his amperage meter, Mr. You Qi Guo adjusted the welding machine to approximately 225 amps and 25 volts. This OA Inspector observed Mr. Yin Guoqiang appears to be certified to make this weld. Items observed by this OA Inspector generally appear to be progressing in compliance with project specifications.

This QA Inspector observed ZPMC welder stencil 053486 is using flux cored welding procedure WPS-B-T-2333-TC-P4-F to make West tower lift 1 weld WSD1-SA653-D/F-4. This weld is located inside the base of West tower on the Heavy Dock. This QA Inspector observed ZPMC CWI Mr. You Qi Guo is monitoring this welding and this QA Inspector measured a welding current of approximately 215 amps and 25.0 volts. Items observed by this QA Inspector appear to be progressing in compliance with project specifications.

This QA Inspector observed ZPMC welder Mr. Wang Daping, stencil 040736, had recently completed using flux cored welding procedure WPS-B-T-2333-TC-P4-F to make West tower lift 1 weld WSD1-SA653-B/E-8. This weld is located inside the base of West tower on the Heavy Dock. This QA Inspector observed ZPMC CWI Mr. You Qi Guo has recorded a welding current of 215 amps and 25.4 volts and Mr. Wang Daping appears to be certified to make this weld. Items observed by this QA Inspector appear to be progressing in compliance with project specifications.

This QA Inspector observed ZPMC welder Mr. Liu Jin, stencil 202821 had recently completed using flux cored welding procedure WPS-B-T-2333-TC-P4-F to make West tower lift 1 weld WSD1-SA653-B/E-5. This weld is located inside the base of West tower on the Heavy Dock. This QA Inspector observed ZPMC CWI Mr. You Qi Guo has recorded a welding current of 215 amps and 25.4 volts and Mr. Liu Jin appears to be certified to make this weld. Items observed by this QA Inspector appear to be progressing in compliance with project specifications.

Segment Assembly

This QA Inspector observed ZPMC welder Mr. Xiao Lin, stencil 49485 is using flux cored welding procedure WPS-B-P-2112 to tack weld 6CW counterweight side longitudinal diaphragm to the floor beam at panel point PP47. This QA Inspector went to the ZPMC QC office and asked ZPMC QC inspector Mr. Wang Li Yang if he was aware that Mr. Xiao Lin is tack welding inside the East bound OBG at panel point 47. Mr. Wang Li Yang said these are temporary welds and he had not been aware that anyone is welding at this location.

Summary of Conversations:

See Above.

Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Eric Tsang phone: 150-0042-2372, who represents the Office of Structural Materials for your project.

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Inspected By: Dawson,Paul Quality Assurance Inspector **Reviewed By:** Carreon, Albert QA Reviewer